

Animal Driven Battery Charging Unit

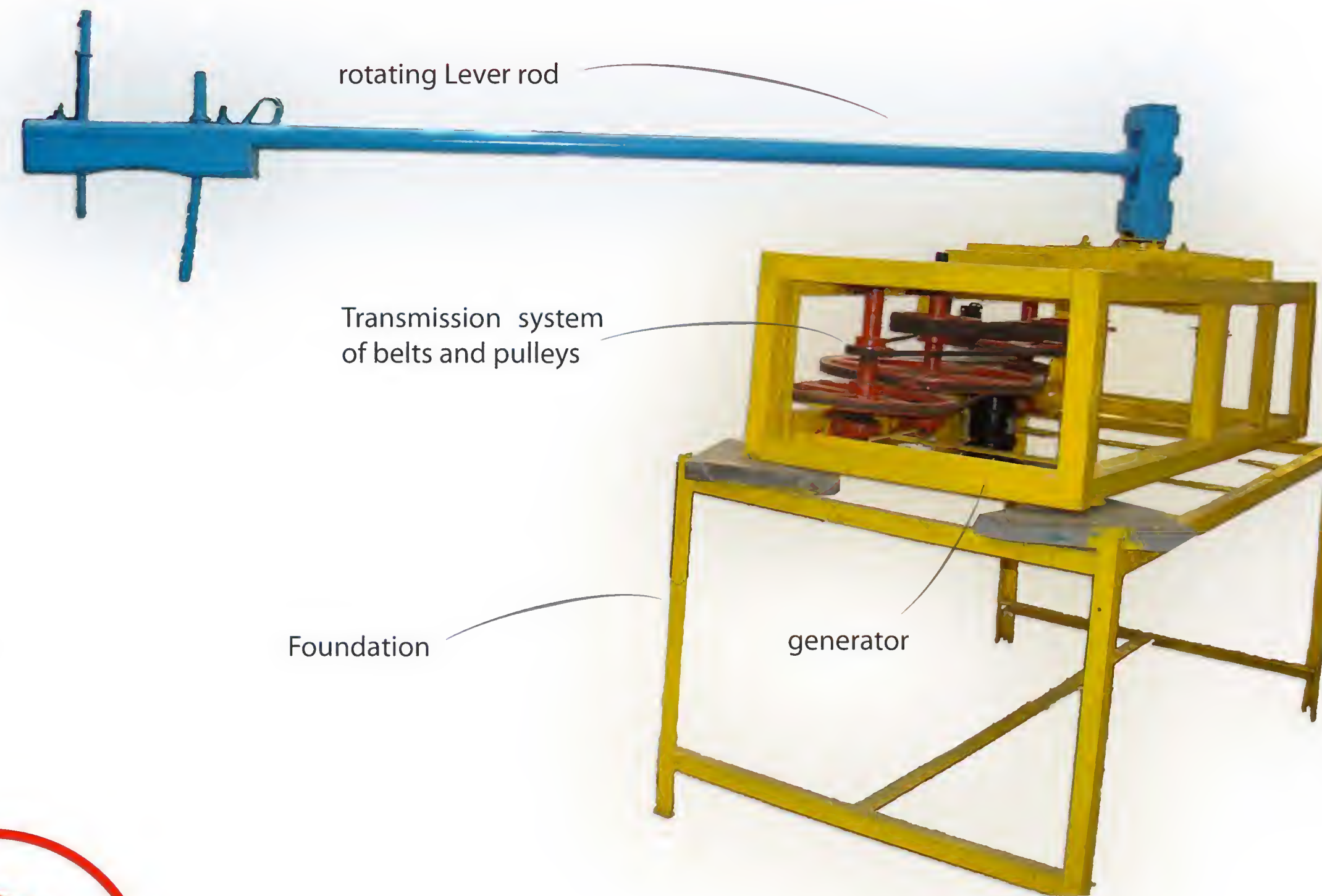
IIT-Bombay has successfully developed Pedal driven battery charging unit (capacity of about 100 W, charging 60Amp-hr battery).

For enhancing the Capacity of generation, the team working on this project believed that there is a great potential for taking animal power to generate electricity using similar designs. An enterprise development is eventually possible in village areas as community battery charging facility using animal power whereby number of hours of bullock use can be enhanced.



Photograph of tested prototype

Approximate Cost : Rs. 16,000/-



Inputs required for generation of about 3 kVA in 8 hours are:

Land area of 10 m x 10 m (with rain protection shed)

A pair of healthy bulls/male buffaloes

Transmission system of belts and pulley's to run generator at 1440 rpm and above while bull rotates lever at about 2 rpm



Components of Animal driven Electricity Generator buiolt at IITB are:

I. Main Frame:
Made up of Mild Steel angles.

II. Power transmission system: -
Belt and pulley drive

III. Generator
Permanent Magnet Direct Current Generator (12 Volt and 40Ampere).



Components used are easily available in market and can be fabricated and/or repaired at a small fabrication shop available in villages.

Pilot unit with two CFL lamps can be built for further testing.